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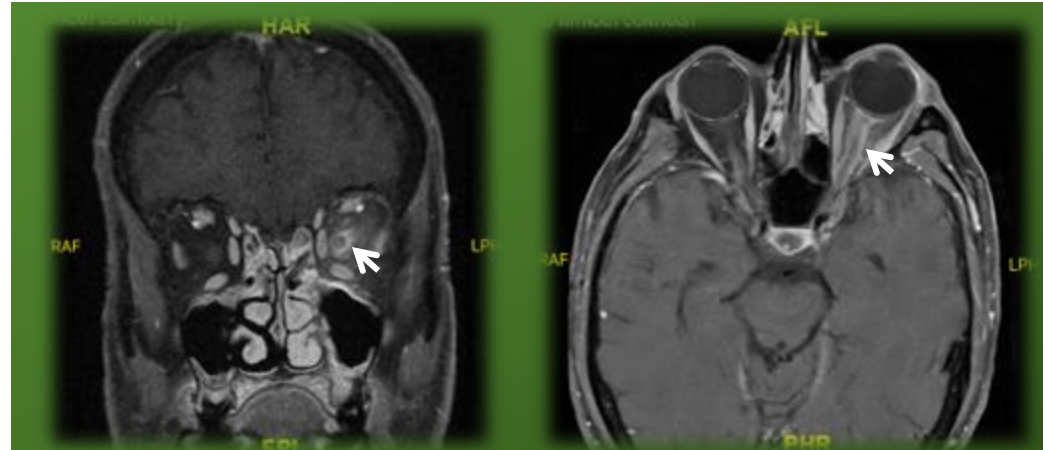
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## Introduction

- Lyme disease, caused by *Borrelia burgdorferi*, is prevalent in Western Pennsylvania.
- Optic neuritis is a rare complication, typically seen in late-stage neuroborreliosis with common symptoms like meningitis and facial palsy.

## Case Presentation

- **Patient:** 68 y/o M with indolent marginal zone lymphoma.
- **Symptoms:** Acute left eye pain & left headache for 3 days, blurry vision & photophobia for 1 day.
- **Examination:** Swollen left eyelid, eye pressure sensation, resolved rash.
- **History:** Atypical rash on chest & back, fever 4 weeks ago; treated with doxycycline and prednisone for 5 days, symptoms resolved.



Brain & orbits MRI, and head MRV ruled out thrombosis or mass, only showing left optic nerve sheath enhancement (white arrows).

Test/Exam	Result	Notes
Complete Blood Count	WBC: 9.6 (Lymphocytes: 48%)	No significant changes compared to previous results
Ophthalmology Exam	Decreased left central vision (20/100)	Intact peripheral vision, normal right eye vision
	Left optic disc edema (3+)	Positive left Marcus Gunn pupil
Lumbar Puncture	Normal Intraocular Pressure	
	WBC: 223 (100% neutrophils), Protein: 113 mg/dl	Normal glucose
Lyme Antibody (CSF)	Positive (>10)	
CSF Flow Cytometry	A monotypic B-cell population with an overall nonspecific phenotype (low cellularity of the specimen)	
Lyme Western Blot (IgM, Blood)	Positive	

## Case Development & Management

- **New Symptoms:**
  - Severe right knee and groin pain.
  - Left Marcus Gunn pupil
- **Treatment:**
  - Doxycycline 100 mg BID for 28 days regardless of serologic results for Lyme.
  - Prednisone 60 mg daily
  - Empirical valacyclovir or varicella and herpes

## Discussion

- **Early treatment with doxycycline** is critical in Lyme neuroborreliosis (minimum 21 days).
- Neutrophil-dominant pleocytosis is rare but documented.
- Vigilance for atypical Lyme presentations is important in endemic regions.